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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,530	04/20/2000	Hiroshi Maeda	09812.0516	5119

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EXAMINER	
BONSHOCK, DENNIS G	

ART UNIT	PAPER NUMBER
2173	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/553,530	MAEDA ET AL.	
	Examiner	Art Unit	
	DENNIS G. BONSHOCK	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,6-9 and 13-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2, 6-9, and 13-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

NON-FINAL REJECTION

Response to Amendment

1. It is hereby acknowledged that the following papers have been received and placed on record in the file: Amendment as received on 5-20-2009.

2. Claims 2, 6-9, and 13-23 have been examined.

Status of Claims:

3. Claims 2, 6-9, 13-15, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida, Patent Number: 5,212,643, Nakayama et al., Patent Number: 5,945,927, hereinafter Nakayama, and Arakawa et al., Patent Number: 5,938,719, hereinafter Arakawa.

4. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida, Nakayama, Arakawa, and U.S. Patent No. 6,012,014 to Koyanagi et al. (hereinafter Koyanagi).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 6-9, 13-15, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida, Patent Number: 5,212,643, Nakayama et al., Patent

Number: 5,945,927, hereinafter Nakayama, and Arakawa et al., Patent Number: 5,938,719, hereinafter Arakawa.

7. Referring to claims 2, and 9, Yoshida teaches a method and electronic map apparatus (vehicle-mounted navigation apparatus). The apparatus has media storing map data to be displayed as a map. See col. 3, lines 22-30, which describes how the display control unit reads (fetches) the map data. Yoshida describes a display device (Fig. 1; 11) for displaying the map in accordance with the map data. The display control unit (microcomputer) processes the map data and scale indication patterns, which is an equidistant curve from a center at a specified point (location of the vehicle) on the map and links points on the map at a constant distance corresponding to actual road distances (col. 2, lines 13-30) from the center equal to those on the map. When the map is displayed on the display device, the circles are displayed on the basis of the circle's display data processed by the microcomputer (display control unit) being superimposed on the map displayed on the display device. See Fig. 3 and col. 4, lines 12-28. Also, see col. 3, lines 39-51, which describe how the display control unit (microcomputer) reads (processes) and superimposes the scale indication pattern on the road map screen in accordance with the position of the vehicle. Thus, the circles are processed such that they are centered around the position of the vehicle. Yoshida teaches that the display control unit (microcomputer) processes data of a plurality of circles representing different geographical distances from the center and the circles are superimposed on the map displayed. See Fig. 3, which shows circles representing distances of 1, 2, and 3 km. Also, see col. 4, lines 12-28. Yoshida further shows that

the display control unit (microcomputer) outputs numbers (1, 2, 3) indicating a geographical distance from the center to the circle and displays each of the numbers in close proximity to the circumference of the circle with the geographical distance thereof indicated by the number. See Fig. 3. Yoshida further teaches, in column 3, lines 55-66 and in figure 4, displaying the characters representing a distance from a center point in a running direction of the vehicle. Furthermore the symbols [16-19] of Figures 2-4 represent four different directions of the map, they are symbols that represent different directions (see column 3, line 67 through column 4, line 11). Yoshida still further teaches that the display control unit (microcomputer) changes contraction of a map (with regard to claim 9) displayed on the display device and modifies the geographical distances from the center to the circles and the number of circles in accordance with a degree of contraction of the map. See the Reduce (20) and Magnify (21) buttons in Fig. 3 and col. 4, lines 4-12, which describe how the reduction of scale is handled. For example, if the Magnify button is pressed to magnify the map by a factor of 2, then only the circles representing 1 and 2Km will be displayed (2 circles instead of 4). Also, see col. 5, lines 4-30, which describe changing the scale and scale indication patterns (i.e. geographical distance representations). Yoshida further teaches displaying a cursor [12] indicating the center of the plurality of arcs where a vehicle is locate and allowing for scrolling across the display (see column 3, line 55 through column 4, line 28 and figure 3).

Yoshida, however, doesn't specifically teach displaying the map in a perspective view, where the map includes areas having ellipses of different colors representing

different geographical areas or highlighting or shadowing the arcs. Nakayama teaches a vehicular navigation system similar to that of Yoshida, but further teaches the user viewing the map in a perspective view derived from a map view (see column 6, lines 25-27, in column 1, line 66 through column 2, line 6 and column 22, lines 49-50), and further teaches the map being displayed with different areas, between concentric lines, being represented with different colors (see column 15, lines 12-25 and lines 52-67). Nakayama teaches using a plurality of arcs that represent a distance from a central point (see column 15, lines 22-25), superimposed over a map (see column 6, lines 16-26 and column 15, lines 12-19), displayed in a perspective view (see column 22, lines 49-50) as ellipses (see column 15, lines 22-25 and figure 19). Nakayama further teaches providing arcs with a higher density (color tone or hue) in gradation (highlighting) that are closer to the present location (see column 13, lines 32-40) while also allowing for dimming (shadowing) arcs located more remote to the present location (see column 15, lines 51-63 and column 15, lines 12-25). It would have been obvious to one of ordinary skill in the art, having the teachings of Yoshida and Nakayama before him at the time the invention was made to modify navigational aid of Yoshida to include the optional perspective view (with skewed distance circles) and color-coded areas, of Nakayama. One would have been motivated to make such a combination because this provide the user with a further level of information embedded in the display (above distance markers) providing the user with an indication of what is ahead (further ahead), in a upper area of the display the is displayed in a smaller state to show an indication of distance, and further showing distance by color transition over distances.

Yoshida and Nakayama further teach indicating the center of the plurality of arcs where a vehicle is locate and allowing for scrolling across the display, see column 3, line 55 through column 4, line 28 and figure 3 of Yoshida), but doesn't specifically teach displaying an indicator in the center of the screen that that provides a reference point (as opposed to a vehicle position) during scrolling. Arakawa teaches a system for vehicular navigation where a vehicle position is marked (see column 9, line 39 through column 10, line 9 and figure 11), similar to that of Yoshida and Nakayama, but further teaches displaying a indicating mark "+" in the center of the map screen during scrolling of the map (see column 10, liens 10-54). It would have been obvious to one of ordinary skill in the art, having the teachings of Yoshida, Nakayama, and Arakawa before him at the time the invention was made to modify the navigation systems of Yoshida and Nakayama to include the central position marking during scrolling of Arakawa. One would have been motivated to make such a combination because this provides a visible indication to the user of the center of the scrolling region so as to specify a new area of the map to work with.

8. Referring to claims 6 and 13, the electronic map apparatus of Yoshida is a navigation apparatus mounted on a vehicle (Vehicle-Mounted Navigation Apparatus), and the specified point is the position of the vehicle. The map data includes the position of the vehicle, which is read from the media. See col. 1, lines 53-62 and col. 3, lines 39-9. Nakayama teaches similar reading of map data from a memory but teaches

displaying the data in a perspective (birds eye view) (see column 6, lines 14-27 and supra).

10. Referring to claims 7 and 14, Yoshida shows that the specified point is the current location of the vehicle, thereby specifying a location by positioning the vehicle (see column 3, lines 55-66).

11. Referring to claims 8 and 15, Yoshida teaches displaying symbols [16-19] representing directions (the direction of the vehicle) a user can scroll the map to (see column 3, line 66 through column 4, line 11).

12. Referring to claims 18 and 21, which teach said microcomputer is configured to selectively display a plane view on said display device, wherein in said plane view, a corresponding distance from the center of said arc of equidistant curve is displayed on one of a plurality of said arcs of equidistant curves, Yoshida further teaches, in column 3, lines 55-66 and in figure 4, displaying the characters representing a distance from a center point in a running direction of the vehicle, the characters in the form of numbers (1, 2, 3) indicating a geographical distance from the center to the circle and displays each of the numbers in close proximity to the circumference of the circle. Nakayama further teaches (supra) the user selectively viewing the map (plane view as in Yoshida) in a perspective view derived from a map view (see column 6, lines 25-27, in column 1, line 66 through column 2, line 6 and column 22, lines 49-50). It would have been obvious to one of ordinary skill in the art, having the teachings of Yoshida and Nakayama before him at the time the invention was made to modify navigational aid of Yoshida to include the optional perspective view, of Nakayama. One would have been

motivated to make such a combination because this provide the user with a further level of information embedded in the display (above distance markers) providing the user with an indication of what is ahead (further ahead), in a upper area of the display the is displayed in a smaller state to show an indication of distance.

13. Referring to claim 19, which teaches the microcomputer modifies said geographical distances from said center to said arcs and modifies the number of said arcs in accordance with a degree of contraction of said map, Yoshida still further teaches that the display control unit (microcomputer) changes contraction of a map displayed on the display device and modifies the geographical distances from the center to the circles and the number of circles in accordance with a degree of contraction of the map. See the Reduce (20) and Magnify (21) buttons in Fig. 3 and col. 4, lines 4-12, which describe how the reduction of scale is handled. For example, if the Magnify button is pressed to magnify the map by a factor of 2, then only the circles representing 1 and 2Km will be displayed (2 circles instead of 4). Also, see col. 5, lines 4-30, which describe changing the scale and scale indication patterns (i.e. geographical distance representations).

14. With regard to claims 20 and 23, which teach said microcomputer being configured to change color of said arc into a supplementary color of a drawn portion to the distance display arc, Nakayama teaches, changing the color of the background of the map concentrically to represent a distance more remote from the user (see column 15, lines 12-25 and lines 52-67).

15. With regard to claim 22, which teaches displaying a plurality of arcs representing different geographical distances from said center and displaying the arcs on said map displayed in said perspective view, Yoshida further teaches, in column 3, lines 55-66 and in figure 4, displaying the characters representing a distance from a center point in a running direction of the vehicle, the characters in the form of numbers (1, 2, 3) indicating a geographical distance from the center to the circle and displays each of the numbers in close proximity to the circumference of the circle. Nakayama further teaches (supra) the user selectively viewing the map (plane view as in Yoshida) in a perspective view derived from a map view (see column 6, lines 25-27, in column 1, line 66 through column 2, line 6 and column 22, lines 49-50). It would have been obvious to one of ordinary skill in the art, having the teachings of Yoshida and Nakayama before him at the time the invention was made to modify navigational aid of Yoshida to include the optional perspective view, of Nakayama. One would have been motivated to make such a combination because this provide the user with a further level of information embedded in the display (above distance markers) providing the user with an indication of what is ahead (further ahead), in a upper area of the display the is displayed in a smaller state to show an indication of distance.

16. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida, Nakayama, Arakawa, and U.S. Patent No. 6,012,014 to Koyanagi et al. (hereinafter Koyanagi).

17. Referring to claims 16-17, Yoshida, Nakayama, and Arakawa describes using a plurality of circles to show the geographical distance of equidistant locations (i.e. a scale), but Yoshida, Nakayama, and Arakawa do not explicitly state that the circles or arcs are displayed so that the constant distance for each equidistant curve corresponding to actual road distance is changed in accordance with the perspective of the map being displayed on the display device in the perspective view.

18. Koyanagi describes an electronic map apparatus and method that displays grid lines or latitude and longitude lines to show a scale on a perspective view of a map to give the user a sense of distance. See col. 1, line 63 - col. 2, line 10. Koyanagi discloses the use of a bird's eye view (col. 2, line 9), as does Nakayama to give the user a more realistic view of the map. Koyanagi describes that the bird's eye view is dependent on an angle of depression 'ϕ' (col. 4, lines 13-21 and col. 12, lines 54-61), and that the scale (latitude and longitude) is converted for the bird's eye view. See col. 11, lines 34-43. The angle of depression varies the perspective of the map. It would have been obvious to one of ordinary skill in the art to modify the electronic map apparatus and method of Yoshida, Nakayama, and Arakawa to vary the scale (curves corresponding to actual road distances) of Yoshida, Nakayama, and Arakawa in accordance with the angle of depression (perspective) for a bird's eye view as supported in Koyanagi displayed on the display device in the perspective view as supported by Nakayama and Koyanagi in order to provide distance information for the perspective view as supported in Koyanagi (col. 2, line 8).

Response to Arguments

The arguments filed on 5-20-2009 have been fully considered but they are not persuasive.

The Applicants argue that the references do not teach a “displaying a cursor indicating a scroll center in close proximity to a common center of the map, the scroll center providing a reference point for an object of operation during scrolling of the map in a vehicle".

In response, the Examiner respectfully submits that Yoshida further teaches displaying a cursor [12] indicating the center of the plurality of arcs from which the vehicular position scrolls across the display, where this cursor is consistently displayed in the center regardless of the position of the navigation apparatus (see column 3, line 55 through column 4, line 11 and figure 3) and in further supplemented by Arakawa who further teaches a system for vehicular navigation where a vehicle position is marked (see column 9, line 39 through column 10, line 9 and figure 11), similar to that of Yoshida and Nakayama, but further teaches displaying a indicating mark “+” in the center of the map screen during scrolling of the map (see column 10, liens 10-54).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS G. BONSHOCK whose telephone number is (571)272-4047. The examiner can normally be reached on Monday - Friday, 6:30 a.m. - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis G. Bonshock/
Primary Examiner, Art Unit 2173
6-29-09
dgb